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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/585,310

07/31/2007

Mitsuo Nakamura

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06/24/2010

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WASHINGTON, DC 20037

EXAMINER

MICHALSKI, SEAN M

ART UNIT

PAPER NUMBER

3724

NOTIFICATION DATE

DELIVERY MODE

06/24/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/585,310	Applicant(s) NAKAMURA, MITSUO	
	Examiner SEAN M. MICHALSKI	Art Unit 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6-11,13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6,8-11 and 13 is/are rejected.
- 7) ☒ Claim(s) 7 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 6, 8-11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yano in view of Hodlewsky (US 4,821,869) and Ritchey (US 1,769,546).

Yano discloses a rubber member conveying device (1 figure 2) including a vibration imparting part (10) that imparts vibration to a rubber member having internal strain (column 1) a conveying part which conveys the rubber (30, 10, 40 all convey they rubber) the rubber member is conveyed by the conveying member (it is a continuous piece of rubber) while being vibrated, wherein the vibration frequency is between 1-50 Hz, has an amplitude of 0.2-20mm and therefore a period of 1s- 1/50th s. The length of time the rubber will be vibrated is longer than one second, since the reference states: "according to the present invention, it is necessary to apply vibration to the extruded rubber for a duration of not less than one second."

Yano does not teach a vibrating imparting part that is integrally formed with a roller conveyor conveying part.

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Hodlewsky teaches a roller conveyor including a rotating endless belt (10 figure 5) having a protruding part (32/54 figure 5) which are rollers which protrude on the outside of the belt-- which would be the rubber part loading side. Regarding claim 6, Hodlewsky further discloses the rollers axis of rotation is perpendicular to the conveyance direction.

Ritchey informs the state of the art, and discloses several pertinent facts- that it is known that rubber contracts after extrusion (page 1 lines 25-30) and that allowing the rubber to move at different speeds while being conveyed will allow the contraction (object of the invention- using cam rollers to allow for different localized speeds, page 1 lines 30-36).

The Vibration Mechanism of Yano includes rollers, which permit local changes in speed of the rubber as it contracts.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a conveyor such as Hodlewsky- having wheels and also imparting a conveying force onto the materials being conveyed and to provide it with a vibration imparting force as taught by Yano. Using a conveyor will provide more flexibility in the design of the drive of the web, since it allows the speed of the drive to be controlled during the vibration step directly, and not by upstream or downstream elements.

In a combined Yano/Hodlewsky conveyor the rubber member would move because of the imparted forces from the wheeled conveyor, the revolving elements would be butted against the rubber member (because they protrude to support the work piece)

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and the rubber member would move relative to the protruding part due at least to the contraction experienced by the rubber while being vibrated in accordance with Yano.

Regarding claim 8, Yano discloses a delivery unit (33 figure 2) which delivers (to the vibrating part) a rubber with internal strain; and a cutting unit (column 6 lines 15-20) which cuts the rubber supplied by the delivery unit.

Regarding claim 9, Yano discloses the delivery unit being capable of intermittent running such that when the cut occurs the delivery unit stops delivering. This is what would happen if the system were powered down immediately after a cut- everything would stop. This is inherent in the arrangement of Yano, since powering down will always result in the claimed functionality.

Regarding claim 10, see extruder 2, 2a figure 2.

Allowable Subject Matter

2. Claims 7 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: there is no reason to modify Yano in view of Hodlewsky to incorporate ball bearings (2 dimensional rollers). The rubber curing/ contracting art shows only systems for adjusting and modifying the contraction in one dimension (Yano, Ritchey) by roller

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bearings of a cylindrical nature. Changing the bearings is not seen to be obvious in view of the known prior art and consideration of the level of ordinary skill.

Response to Arguments

3. Applicant's arguments filed 3/30/2010 have been fully considered but they are not persuasive.

Applicant alleges that cancellation of claim 3 renders moot the rejection thereof under 35 USC 112, which is correct.

Applicant alleges that claim 1 is patentable over Yano alone. This is moot, since the rejection over Yano alone has been withdrawn.

Applicant alleges that Hodlewsky does not disclose a protruding part as a vibrating part. In the combination of references as set forth the conveyor as provided by Hodlewsky will be vibrated according to Yano. Since the projecting parts are the parts that contact the rubber, and they vibrate, they are vibration imparting parts, and meet the limitations of the claim, and are configured similarly to the vibration imparting/protruding parts of the present invention (inasmuch as their source and transmission of vibrations is concerned).

Claims 6, etc. are alleged patentable by their dependencies; this is not persuasive, since no independent claim has been found to be patentable.

Claim 11 is acknowledged to essentially stand or fall by claim 1, as set forth by applicant.

Applicant is correct in asserting the allowability as indicated of the subject matter of claims 7 and 14.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEAN M. MICHALSKI whose telephone number is (571)272-6752. The examiner can normally be reached on M-Th 6:30AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sean M Michalski/
Examiner, Art Unit 3724

/Kenneth Peterson/
Primary Examiner, Art Unit 3724